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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/541,586	WATANABE ET AL.	
	Examiner	Art Unit	
	Michael J. Feely	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 February 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9 and 11-33* is/are pending in the application.

4a) Of the above claim(s) *13,28 and 29* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9,11,12,14-27 and 30-33* is/are rejected.

7)☒ Claim(s) *8 and 32* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20090415*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Pending Claims

Claims 1-9 and 11-33 are pending.

Election/Restrictions

1. Claims 13, 28, and 29 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on June 4, 2008.

Claim Interpretation

2. In claims 14-17, 22, 24, 27, and 30, the recitation: *"an adhesive (epoxy resin) paste;" "an interlayer adhesive;" "a non-conductive paste;" "an underfill;" "a die attach film;" "an anisotripic conductive paste;" "an anisotripic conductive film;" "a flip chip tape;"* have been given little patentable weight because these recitations occur in the preamble. A preamble is generally not accorded patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

In the instant case, the preamble merely recites the intended use of the adhesive, wherein the prior art can meet this future limitation by merely being capable of such intended use.

Response to Amendment

3. The rejection of claims 18-22, 25-27, and 30-33 under 35 U.S.C. 112, second paragraph, has been overcome by amendment.

4. The rejection of claim 12 under 35 U.S.C. 112, second paragraph, has been overcome by amendment.

Response to Arguments

5. Applicant's arguments, see pages 10-12 of the response, filed February 21, 2009, with respect to the previous prior art rejection(s) of claim 10 *(now incorporated into independent claim 1)* have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Hiroshige et al. and Shinozaki et al.

- The rejection of claims 1-6, 12, 14-27, and 30-33 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yagisawa (JP 2002-241584) has been withdrawn/overcome by amendment.
- The rejection of claims 1-6, 12, 14-27, and 30-33 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tanaka et al. (WO 00/78887) has been withdrawn/overcome by amendment.
- The rejection of claim 10 under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (WO 00/78887) in view of Tomiyama et al. (WO 01/74962) has been withdrawn/rendered moot by the cancellation of this claim.

- The rejection of claims 7-9 and 11 under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (WO 00/78887) in view of Tomiyama et al. (WO 01/74962) has been withdrawn/overcome by amendment.

Claim Objections

6. Claim 32 is objected to because of the following informalities: claim 32 features improper Markush language. The substrate material should be selected from *the* group consisting of said substrate materials. Appropriate correction is required.

Claim Rejections - 35 USC § 102/103

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-6, 9, 11, 12, 14-24, and 31-33 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hiroshige et al. (US Pat. No. 6,309,502).

Regarding claims 1-6, 9, 12, 14-24, and 31-33, Hiroshige et al. disclose: ***(1)*** a curable resin composition, which contains an epoxy resin (column 3, line 60 through column 4, line 7: *see component a*), a high molecular polymer having an epoxy group (column 3, line 60 through column 4, line 7: *see component b*) and a curing agent for an epoxy resin (column 3, line 60 through column 4, line 7: *see any one of components c, d (capable of crosslinking with epoxy), and e (capable of crosslinking with epoxy)*), wherein the high molecular polymer having an epoxy group has an epoxy equivalent of 200 to 1,000 (column 6, line 56 through column 7, line 12);

(9) wherein the high molecular polymer having an epoxy group has a weight-average molecular weight (Mw) of 10,000 or higher (column 6, line 56 through column 7, line 12);

(12) which further contains a low elastic modulus substance having elastic modulus (G') in a range of $1x10^5$ to $1x10^8$ Pa at 20°C (column 6, line 56 through column 7, line 12: *simultaneously satisfied by component b of the prior art*; see also *rubber particle additives* in column 9, line 55 through column 10, line 7);

(14) an adhesive epoxy resin paste, which comprises the curable resin composition according to claim 1 (column 4, lines 8-30; column 9, lines 19-53: *see dispersion prior to formation of film*); ***(15)*** an interlayer adhesive which comprises the adhesive epoxy resin paste according to claim 14 (column 4, lines 8-30; column 9, lines 19-53); ***(16)*** a non-conductive paste, which comprises the adhesive epoxy resin paste according to claim 14 (column 4, lines 8-30; column 10, lines 8-21: *conductive filler optional*); ***(17)*** an underfill, which comprises the adhesive epoxy resin paste according to claim 14 (column 4, lines 8-30; column 9, lines 19-53: *inherently capable of intended use prior to formation of film*); ***(23)*** wherein conductive fine

particles are contained in the adhesive epoxy resin paste according to claim 14 (column 9, lines 37-43); ***(24)*** an anisotropic conductive paste, which comprises the conductive connection paste according to claim 23 (column 4, lines 8-30; column 9, lines 19-53: *see dispersion prior to formation of film*);

(18) an adhesive epoxy resin sheet, which is *obtained* by forming the curable resin composition according to claim 1 in a sheet form (column 4, lines 8-30; column 9, lines 19-53); ***(21)*** a non-conductive film, which comprises the adhesive epoxy resin sheet according to claim 18 (column 4, lines 8-30; column 10, lines 8-21: *conductive filler optional*); ***(22)*** a die attach film, which comprises the adhesive epoxy resin sheet according to claim 18 (column 4, lines 8-30; column 9, lines 19-53; column 10, lines 8-21: *inherently capable of intended use*);

(31) an electronic component joined body, which is *obtained* by joining a bump-shaped projected electrode of an electronic part to another electrode in electrically connected state by a curable resin composition according to claim 1 (column 5, line 33 through column 6, line 12);

(32) an electronic component joined body, which is *obtained* by joining at least one kind *of* circuit substrate selected from *the* group consisting of a metal lead frame, a ceramic substrate, a resin substrate, a silicon substrate, a compound semiconductor substrate, and a glass substrate by the curable resin composition according to claim 1 (column 5, line 33 through column 6, line 12; column 10); and ***(33)*** wherein the resin substrate is a glass epoxy substrate, a bismaleimidetriazine substrate or a polyimide substrate (*limitation not required: scope still open to the entire Markush group set forth in claim 32*).

Component *b* of Hiroshige et al. features an epoxy equivalent weight of from about 200 to about 5000, preferably from about 300 to about 3000, and more preferably from about 500 to

about 2500 *(see column 6, lines 56-67)*. All of these ranges overlap the instantly claimed range of 200 to 1000, and the ranges set forth in the prior art appear to be sufficiently specific to anticipate the claimed limitation – *see MPEP 2131.03*. Alternatively, the overlap of the prior art ranges, at the very least, is sufficient to establish a *prima facie* case of obviousness – *see MPEP 2144.05*.

The prior art fails to explicitly disclose the following properties:

- ***(1)*** no phase separation structure being observed in a matrix of a resin when a cured product is dyed with a heavy metal and observed with a transmission electron microscope;
- ***(2)*** wherein the cured product has a single tanδ peak in viscoelasticity spectrometry and the temperature of the peak is 120°C or higher;
- ***(3)*** wherein the cured product has a swelling ratio of 50% or less measured in a dimethyl sulfoxide solution heated at 120°C;
- ***(4)*** wherein extracted water obtained by extracting an eluting component of the cured product with hot water at 110°C has pH not lower than 5.0 and lower than 8.5;
- ***(5)*** wherein extracted water obtained by extracting an eluting component of the cured product with hot water at 110°C has an electric conductivity of 100 μS/cm or lower;
- ***(6)*** wherein the cured product has a dielectric constant of 3.5 or lower and a dielectric loss tangent of 0.02 or lower;
- ***(19)*** wherein a heat-cured product obtained by heat curing at a temperature rising rate of 45°C/min has a storage modulus (G') exceeding $1x10^3$ Pa; and

- ***(20)*** wherein the peak temperature of tanδ based on dynamic viscoelasticity is in a range of-20°C to 40°C before curing and 120°C or higher after curing.

However, it appears that the composition of Hiroshige et al. would have satisfied these properties because it satisfies all of the chemical/material limitations of the instant invention. In light of this, it has been found that, "Products of identical chemical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present – *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Therefore, it appears that the composition of Hiroshige et al. would have satisfied the instantly claimed properties because it satisfies all of the chemical/material limitations of the instant invention.

Regarding claim 11, Hiroshige et al. fail to explicitly disclose: ***(11)*** wherein the high molecular polymer having an epoxy group is produced by suspension polymerization method. However, it should be noted that this is a *product-by-process limitation*. In light of this, it has been found that, "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process," – *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) *(see MPEP 2113)*.

In the instant case, component *b* of Hiroshige et al. satisfies the *product-by-process* limitation because it appears to be the same or an obvious variation of the claimed material, regardless of the polymerization technique used to produce it.

Claim Rejections - 35 USC § 103

10. Claims 1-7, 11, 14-24, and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinozaki et al. (US 2002/0009597) and the technical data sheet of EPON 164. The technical data sheet is used as evidence to demonstrate that cresol novolac epoxy resins have an epoxy equivalent weight of 200-240.

Regarding claims 1-7, 14-24, and 31-33, Shinozaki et al. disclose: ***(1)*** a curable resin composition, which contains an epoxy resin (Abstract; paragraph 0018: *see epoxy resin that is liquid at room temperature*), a high molecular polymer having an epoxy group (Abstract; paragraph 0018: *see high molecular weight epoxy resin that is solid at normal temperature*) and a curing agent for an epoxy resin (Abstract; paragraphs 0022-0026);

(7) wherein the epoxy resin is an epoxy resin having a polycyclic hydrocarbon skeleton in the main chain (Abstract; paragraph 0018: *see epoxy resin that is liquid at room temperature, including bisphenol A or bisphenol F type*);

(14) an adhesive epoxy resin paste, which comprises the curable resin composition according to claim 1 (paragraphs 0030-0031: *see connecting material prior to formation of film*); ***(15)*** an interlayer adhesive which comprises the adhesive epoxy resin paste according to claim 14 (paragraphs 0030-0031); ***(16)*** a non-conductive paste, which comprises the adhesive epoxy resin paste according to claim 14 (paragraphs 0030-0031: *conductive filler optional*); ***(17)*** an

underfill, which comprises the adhesive epoxy resin paste according to claim 14 (paragraphs 0030-0031: *inherently capable of intended use prior to formation of film*); ***(23)*** wherein conductive fine particles are contained in the adhesive epoxy resin paste according to claim 14 (paragraphs 0027 & 0030-0031); ***(24)*** an anisotropic conductive paste, which comprises the conductive connection paste according to claim 23 (paragraphs 0027 & 0030-0031);

(18) an adhesive epoxy resin sheet, which is *obtained* by forming the curable resin composition according to claim 1 in a sheet form (paragraphs 0030-0031); ***(21)*** a non-conductive film, which comprises the adhesive epoxy resin sheet according to claim 18 (paragraphs 0030-0031: *conductive filler optional*); ***(22)*** a die attach film, which comprises the adhesive epoxy resin sheet according to claim 18 (paragraphs 0030-0031: *inherently capable of intended use*);

(31) an electronic component joined body, which is *obtained* by joining a bump-shaped projected electrode of an electronic part to another electrode in electrically connected state by a curable resin composition according to claim 1 (paragraphs 0030-0031);

(32) an electronic component joined body, which is *obtained* by joining at least one kind *of* circuit substrate selected from *the* group consisting of a metal lead frame, a ceramic substrate, a resin substrate, a silicon substrate, a compound semiconductor substrate, and a glass substrate by the curable resin composition according to claim 1 (paragraphs 0030-0031); ***(33)*** wherein the resin substrate is a glass epoxy substrate, a bismaleimidetriazine substrate or a polyimide substrate (*limitation not required: scope still open to the entire Markush group set forth in claim 32*).

Shinozaki et al. fail to explicitly disclose the instantly claimed *high molecular polymer having an epoxy equivalent weight of 200 to 1,000i.* Rather, they contemplate a combination of

epoxy resins including a high molecular weight epoxy resin that is solid at normal temperature and an epoxy resin that is liquid at normal temperature *(see paragraph 0018)*. The liquid epoxy resins are exemplified by bisphenol A or F type epoxy resin. The solid epoxy resins are exemplified by a group of materials including cresol novolac type epoxy resins. These cresol novolac type epoxy resins inherently feature an epoxy equivalent weight of 200-240 *(see technical data sheet of Epon 164, page 1)*, which overlaps the instantly claimed range of 200 to 1,000. Accordingly, the obvious selection of cresol novolac type epoxy resins in the formulation of Shinozaki et al. would have satisfied the instantly claimed *high molecular polymer*.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the instantly claimed *high molecular polymer* in the composition of Shinozaki et al. because: (a) they contemplate a combination of epoxy resins including a high molecular weight epoxy resin that is solid at normal temperature and an epoxy resin that is liquid at normal temperature; (b) the solid epoxy resins are exemplified by a group of materials including cresol novolac type epoxy resins; and (c) cresol novolac type epoxy resins inherently feature an epoxy equivalent weight of 200-240, which overlaps the instantly claimed range of 200 to 1,000. Accordingly, the obvious selection of cresol novolac type epoxy resins in the formulation of Shinozaki et al. would have satisfied the instantly claimed *high molecular polymer*.

The prior art fails to explicitly disclose the following properties:

- ***(1)*** no phase separation structure being observed in a matrix of a resin when a cured product is dyed with a heavy metal and observed with a transmission electron microscope;

- ***(2)*** wherein the cured product has a single tanδ peak in viscoelasticity spectrometry and the temperature of the peak is 120°C or higher;
- ***(3)*** wherein the cured product has a swelling ratio of 50% or less measured in a dimethyl sulfoxide solution heated at 120°C;
- ***(4)*** wherein extracted water obtained by extracting an eluting component of the cured product with hot water at 110°C has pH not lower than 5.0 and lower than 8.5;
- ***(5)*** wherein extracted water obtained by extracting an eluting component of the cured product with hot water at 110°C has an electric conductivity of 100 μS/cm or lower;
- ***(6)*** wherein the cured product has a dielectric constant of 3.5 or lower and a dielectric loss tangent of 0.02 or lower;
- ***(19)*** wherein a heat-cured product obtained by heat curing at a temperature rising rate of 45°C/min has a storage modulus (G') exceeding $1x10^3$ Pa; and
- ***(20)*** wherein the peak temperature of tanδ based on dynamic viscoelasticity is in a range of-20°C to 40°C before curing and 120°C or higher after curing.

However, it appears that the composition of Shinozaki et al. would have satisfied these properties because it satisfies all of the chemical/material limitations of the instant invention. In light of this, it has been found that, "Products of identical chemical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present – *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Therefore, it appears that the composition of Shinozaki et al. would have satisfied the instantly claimed properties because it satisfies all of the chemical/material limitations of the instant invention.

Regarding claim 11, Shinozaki et al. fail to explicitly disclose: ***(11)*** wherein the high molecular polymer having an epoxy group is produced by suspension polymerization method. However, it should be noted that this is a *product-by-process limitation*. In light of this, it has been found that, "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process," – *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) *(see MPEP 2113)*.

In the instant case, the cresol novolac type epoxy resin of Shinozaki et al. satisfies the *product-by-process* limitation because it appears to be the same or an obvious variation of the claimed material, regardless of the polymerization technique used to produce it.

11. Claims 25-27 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over {Hiroshige et al. (US Pat. No. 6,309,502) or [Shinozaki et al. (US 2002/0009597) and the technical data sheet of EPON 164]} in view of Kaneda et al. (US Pat. No. 6,223,429.

Regarding claims 26 and 27, the teachings of Hiroshige et al. and Shinozaki et al. are as set forth above and incorporated herein. They both disclose anisotropic conductive films; however, they fail to explicitly disclose: ***(26 & 27)*** a conductive connection sheet, which is

obtained by embedding conductive fine particles *smaller than the thickness of the adhesive epoxy resin sheet* in the adhesive epoxy resin sheet according to claim 18.

The teachings of Kaneda et al. *(see Fig 2; column 9, lines 31-36)* demonstrate that this is a standard characteristic of anisotropic films *(see also column 6, lines 31-47)*.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use conductive fine particles *smaller than the thickness of the adhesive epoxy resin sheet* in the anisotropic sheets of Hiroshige et al. or Shinozaki et al. because the teachings of Kaneda et al. demonstrate that this is a standard characteristic of anisotropic films.

Regarding claim 25 and 30, the teachings of Hiroshige et al. and Shinozaki et al. are as set forth above and incorporated herein. They both disclose ***(25)*** a conductive connection sheet, which comprises the adhesive epoxy resin sheet according to claim 18 and conductive fine particles (*see rejections above*); and ***(30)*** a flip chip tape, which comprises a conductive connection sheet according to claim 25 (*see rejections above: films inherently capable of intended use*). However, the prior art fails to explicitly disclose that *at least a part of the conductive fine particles are exposed out of the adhesive epoxy resin sheet*.

Again, the teachings of Kaneda et al. *(see Fig 2; column 9, lines 31-36)* demonstrate that this is a standard characteristic of anisotropic films *(see also column 6, lines 31-47)*. It appears that this is required to properly electrically connect the circuit substrate materials.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have *at least a port of the conductive fine particles exposed out of the adhesive epoxy resin sheet* in the anisotropic sheets of Hiroshige et al. or Shinozaki et al. because the teachings of Kaneda et al. demonstrate that this is a standard characteristic of anisotropic films.

Furthermore, it appears that this is required to properly electrically connect the circuit substrate materials.

Allowable Subject Matter

12. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Feely whose telephone number is (571)272-1086. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J Feely/
Primary Examiner, Art Unit 1796

May 25, 2009